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GSM06E series

6W AC-DC Reliable Green Medical Adaptor

User's Manual

Video

BS EN/EN60601-1

ECO Medical 2xMOPP BF rated

Features

- 2 pole EURO plug , Class Ⅱ power unit
- Medical safety approved (2 x MOPP) accroding to BS EN/EN60601-1
- Extremely low leakage current
- No load power consumption< 0.3W
- Energy efficiency Level Ⅴ
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- 3 years warranty

Applications

- Blood glucose meter
- Blood pressure meter
- Nebulizer
- Inhaler
- Portable medical device

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

GSM06E is a highly reliable, 6W wall-mounted style single-output green medical adaptor series. This product is equipped with a 2-pin (no FG) standard European power plug, adopting the input range from 85VAC to 264VAC. The entire series supplies different output voltages between 5VDC and 24VDC that can satisfy the demands for various kinds of miniature medical devices. The circuitry design meets the international medical standards (2 x MOPP), having an ultra low leakage current (<50μA), fitting the medical devices in direct electrical contact with the patients.

With the efficiency up to 82% and the extreme low no-load power consumption below 0.3W. GSM06E is compliant with EU ErP. The supreme feature allows the adaptor to save the energy when it is either under the operating mode or the standby mode. The entire series utilizes the 94V-0 flame retardant plastic case, providing the double insulation that effectively prevents electrical shock. GSM06E is approved with the international medical safety certificates.

Model Encoding

GSM06 E 05 -P1J

- DC plug type: P1J : Plug for standard model, 2.1ψ x 5.5ψ x11mm, c+, tuning fork type
  Other options available by customer requested (see Page 4~5)
- Output voltage
- European 2 pin AC plug
- Rated wattage
- Series name

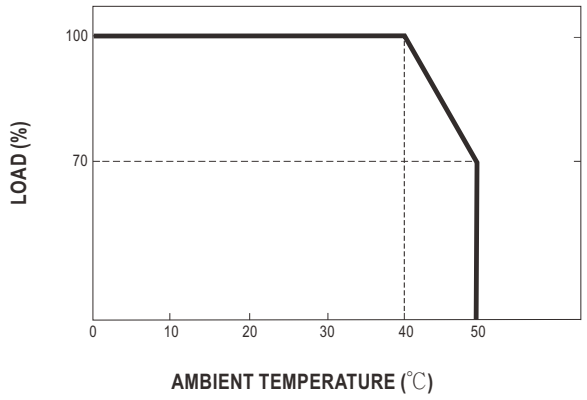
SPECIFICATION

ORDER NO.		GSM06E05-P1J	GSM06E06-P1J	GSM06E07-P1J	GSM06E09-P1J	GSM06E12-P1J	GSM06E15-P1J	GSM06E18-P1J	GSM06E24-P1J
OUTPUT	SAFETY MODEL NO.	GSM06E05	GSM06E06	GSM06E07	GSM06E09	GSM06E12	GSM06E15	GSM06E18	GSM06E24
	DC VOLTAGE Note.2	5V	6V	7.5V	9V	12V	15V	18V	24V
	RATED CURRENT	1.2A	1A	0.8A	0.66A	0.5A	0.4A	0.33A	0.25A
	CURRENT RANGE	0 ~ 1.2A	0 ~ 1A	0 ~ 0.8A	0 ~ 0.66A	0 ~ 0.5A	0 ~ 0.4A	0 ~ 0.33A	0 ~ 0.25A
	RATED POWER	6W	6W	6W	6W	6W	6W	6W	6W
	RIPPLE & NOISE (max.) Note.3	50mVp-p	50mVp-p	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	180mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±5.0%	±5.0%	±5.0%	±5.0%	±4.0%
	LINE REGULATION Note.5	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION Note.6	±5.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%
	SETUP, RISE, HOLD UP TIME	1000ms, 50ms, 12ms at full load							
INPUT	VOLTAGE RANGE	85 ~ 264VAC 120 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	68%	74%	74%	76%	77%	79%	80%	82%
	AC CURRENT	0.18A / 100VAC							
	INRUSH CURRENT (max.)	Cold start 15A/ 115VAC 30A / 230VAC							
	LEAKAGE CURRENT(max.)	Touch current < 50μA/264VAC							
PROTECTION	OVERLOAD	>105% rated output power							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	110 ~ 140% rated output power							
		Protection type : Clamp by zener diode							
ENVIRONMENT	WORKING TEMP.	0 ~ +50℃(Refer to "Derating Curve")							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH non-condensing							
	TEMP. COEFFICIENT	±0.04% / ℃ (0 ~ 40℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
SAFETY & EMC (Note. 7)	SAFETY STANDARDS	TUV BS EN/EN60601-1, BS EN/EN60601-1-11, EAC TP TC 004 approved							
	ISOLATION LEVEL	Pimary - Secondary: 2 x MOPP							
	WITHSTAND VOLTAGE	I/P-O/P:5656VDC							
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH							
	EMC EMISSION	**Parameter**			**Standard**			**Test Level / Note**	
		Conducted emission			BS EN/EN55011 (CISPR11)			Class B	
		Radiated emission			BS EN/EN55011 (CISPR11)			Class B	
		Harmonic current			BS EN/EN61000-3-2			Class A	
		Voltage flicker			BS EN/EN61000-3-3			-----	
	EMC IMMUNITY	BS EN/EN55024 , BS EN/EN60601-1-2, BS EN/EN61204-3							
		Parameter			**Standard**			**Test Level / Note**	
		ESD			BS EN/EN61000-4-2			Level 4, 15KV air ; Level 4, 8KV contact	
		RF field susceptibility			BS EN/EN61000-4-3			Level 3, 10V/m(80MHz~2.7GHz) Table 9, 9~28V/m(385MHz~5.78GHz)	
		EFT bursts			BS EN/EN61000-4-4			Level 3, 2KV	
		Surge susceptibility			BS EN/EN61000-4-5			Level 3, 1KV/Line-Line	
		Conducted susceptibility			BS EN/EN61000-4-6			Level 2, 3V	
		Magnetic field immunity			BS EN/EN61000-4-8			Level 4, 30A/m	
		Voltage dip, interruption			BS EN/EN61000-4-11			>95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods	
OTHERS	MTBF	500Khrs min. MIL-HDBK-217F(25℃)							
	DIMENSION	32*66*42.5mm (L*W*H)							
	PACKING	100g ; 90pcs / 10Kg / CARTON							
CONNECTOR	PLUG	See page 4~5 ; Other type available by customer requested							
	CABLE	See page 4~5 ; Other type available by customer requested							

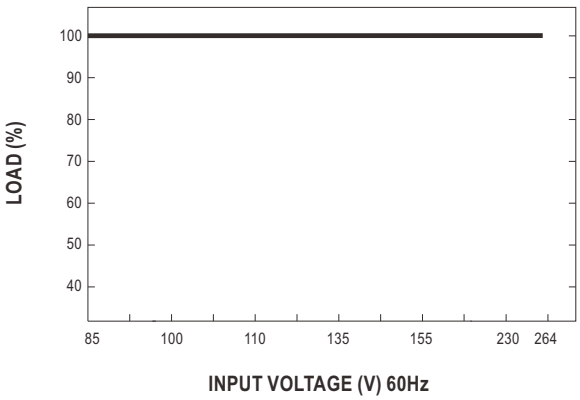
NOTE

1.All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.
2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.
3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor.
4.Tolerance: includes set up tolerance, line regulation, load regulation.
5.Line regulation is measured from low line to high line at rated load.
6.Load regulation is measured from 0% to 100% rated load.
7.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.” (as available on http://www.meanwell.com)
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

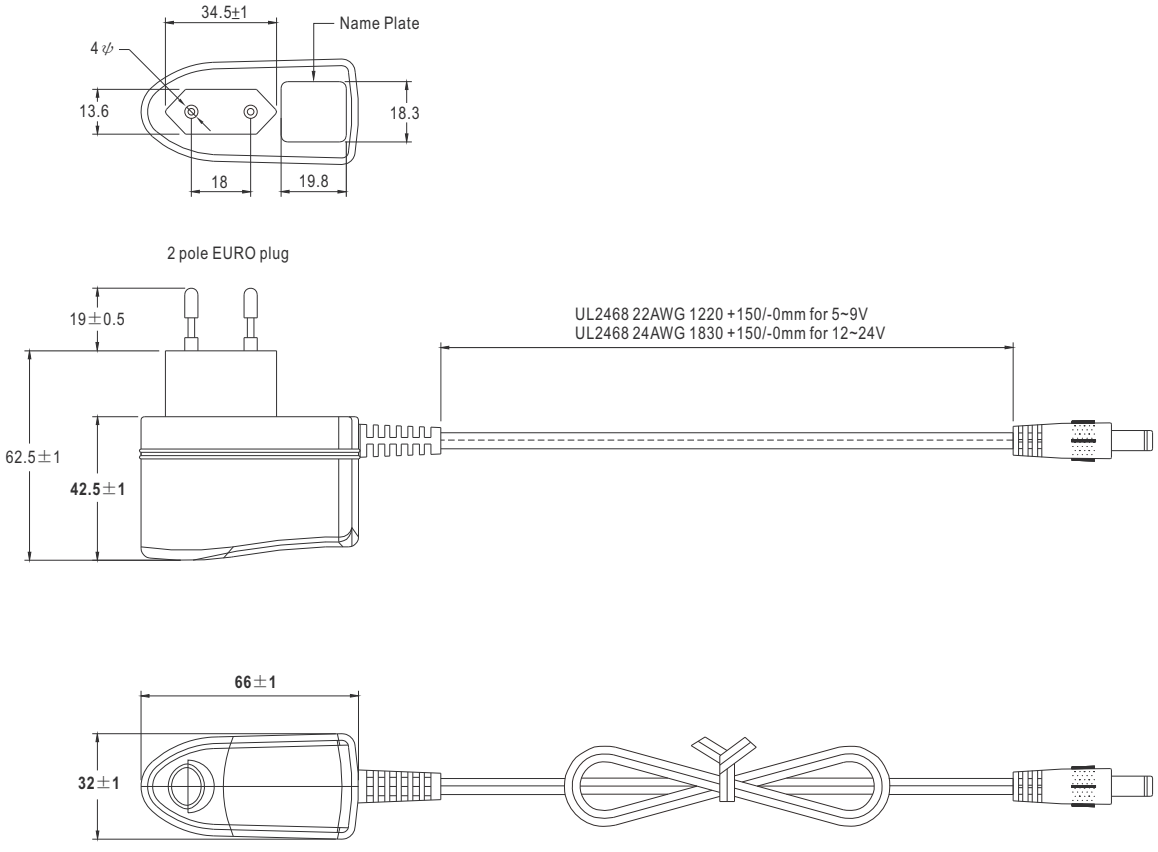
■ Derating Curve



■ Static Characteristics



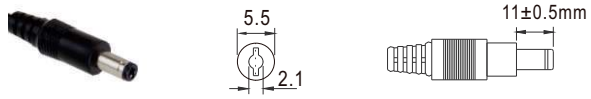
■ Mechanical Specification



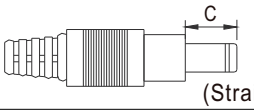
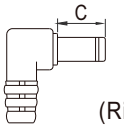
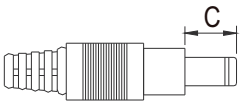
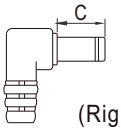
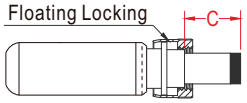
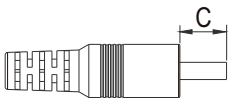
■ DC output plug

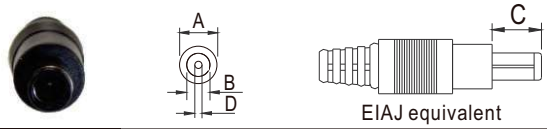
◎ Standard plug: P1J

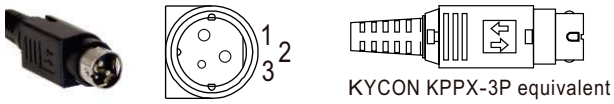
Unit:mm

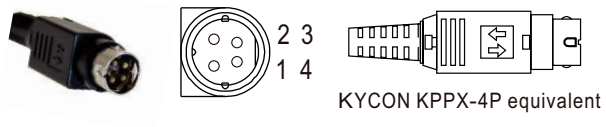
P1J	Pin Assignment
	 Outside  Inside

◎ Optional DC plug:

Tuning Fork Style		Type No.	A / OD	B / ID	C / L
	 (Straight)	P1I	5.5	2.1	9.5
		P1L	5.5	2.5	9.5
		P1M	5.5	2.5	11.0
	 (Right-angled)	P1IR	5.5	2.1	9.5
		P1JR	5.5	2.1	11.0
		P1LR	5.5	2.5	9.5
		P1MR	5.5	2.5	11.0
Barrel Style		Type No.	A / OD	B / ID	C / L
	 (Straight)	P2I	5.5	2.1	9.5
		P2J	5.5	2.1	11.0
		P2L	5.5	2.5	9.5
		P2M	5.5	2.5	11.0
	 (Right-angled)	P2IR	5.5	2.1	9.5
		P2JR	5.5	2.1	11.0
		P2LR	5.5	2.5	9.5
		P2MR	5.5	2.5	11.0
Lock Style		Type No.	A / OD	B / ID	C / L
	 SWITCHCRAFT original or equivalent	P2S(S761K)	5.53	2.03	12.06
		P2K(761K)	5.53	2.54	12.06
		P2C(S760K)	5.53	2.03	9.52
		P2D(760K)	5.53	2.54	9.52
Min. Pin Style		Type No.	A / OD	B / ID	C / L
	 EIAJ equivalent	P3A	2.35	0.7	11.0
		P3B	4.0	1.7	11.0
		P3C	4.75	1.7	11.0

Center Pin Style	Type No.	A OD	B ID	C L	D Center Pin
 EIAJ equivalent	P4A	5.5	3.4	11.0	1.0
	P4B	6.5	4.4	11.0	1.4
	P4C	7.4	5.1	11.0	0.6

Min. DIN 3 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-3P equivalent	R6B	1	+Vo
		2	-Vo
		3	+Vo

Min. DIN 4 Pin with Lock (male)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPPX-4P equivalent	R7B	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

Min. DIN 4 Pin with Lock (female)	Type No.	Pin Assignment	
		PIN No.	Output
 KYCON KPJX-CM-4S equivalent	R7BF	1	+Vo
		2	-Vo
		3	-Vo
		4	+Vo

Stripped and tinned leads	Type No.	Pin Assignment	
		PIN No.	Output
 Length of Land L1 by request (MW's standard length, L: 25 mm, L1: 10 mm)	by customer	1 (Ribbed)	+Vo
		2 (Letter)	-Vo

■ Installation Manual

Please refer to : http://www.meanwell.com/manual.html